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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,519	09/14/2004	Kazuhito Niwano	258735US2PCT	1180

22850 7590 10/19/2005

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EXAMINER

DOAN, PHUOC HUU

ART UNIT PAPER NUMBER

2687

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/507,519	Applicant(s) NIWANO, KAZUHITO	
	Examiner PHUOC H. DOAN	Art Unit 2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-12 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2 and 4 is/are allowed.
- 6) ☒ Claim(s) 6-9,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/14/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **6-9, and 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Das (US Pub No: 2003/0087605)** in view of **Seo (US Pub No: 2002/0075946)**.

As to claim 6, Das discloses a communication system in which mobile stations transmit to base stations quality information about downlinks from the base stations to the mobile stations (page 2, par. [0015]) at alterable report cycles, said communication system including channels each varying a transmission rate by changing a transmission format of data transmitted from the base stations through the downlinks in response to the quality information transmitted (page 2, par. [0016-0017]), wherein said base stations each receive the quality information from said mobile stations at the report cycles whose possible values differ from each other. However, Das does not disclose that at alterable report cycles, wherein said

base stations each receive the quality information from said mobile stations at the report cycles whose possible values differ from each other.

In the same field of invention, Seo discloses that at **alterable report cycles** (page 3, par. [0041-0045], **DPDCH signal is filtered out as I channel and Q channel**), wherein said base stations each receive the quality information from said mobile stations at the report cycles whose possible values differ from each other (page 4, par. [0056-0059]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide that wherein said base stations each receive the quality information from said mobile stations at the report cycles as taught by Seo to the system of Das in order to improved the data rate in transmission.

As to claim 7, the combination of Das and Seo further disclose the communication system according to claim 6, wherein said base stations each exchange the report cycles (page 3 through page 4, par. [0045-0048] of Seo), at which said base stations receive the quality information from said mobile stations (page 3, par. [0019], and [0021-0023] of Das), via an inter-base station communication line interconnecting said base stations (page 3, par. [0025] of Das).

As to claim 8, Das discloses a base station characterized by selecting report cycles (page 2, par. [0015-0016], at which mobile stations transmit to the base station

quality information about a downlink from the base station to the mobile stations (page 2, par. [0017], from candidates having a plurality of report cycles including at least two report cycles without having a relation of a multiple (page 2, par. [0017], **R1, and R2 are the desired rate of transmission**), and by notifying the mobile stations of the report cycles selected (page 2 through page 3, par. [0018-0021], **the rate feedback can provided a faster rate or slower rate for a period of time even though transmission from the base stations**). However, Das does not disclose the mobile station of the report cycles.

In the same field of invention, Seo discloses the mobile station of the **report cycles** (page 3, par. [0041-0045], **DPDCH signal is filtered out as I channel and Q channel**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mobile stations of the report cycles as taught by Seo to the system of Das in order to improved the data rate in transmission.

As to claim 9, Das discloses a mobile station characterized by transmitting to a base station quality information about a downlink from the base station to the mobile station with switching at least two report cycles without having a relation of a multiple (page 2, par. [0015-0017]. However, Das does not disclose the mobile station of the report cycles.

In the same field of invention, Seo discloses the mobile station of the **report cycles** (page 3, par. [0041-0045], **DPDCH signal is filtered out as I channel and Q channel**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mobile stations of the report cycles as taught by Seo to the system of Das in order to improved the data rate in transmission.

As to claim 11, the combination of Das and Seo further disclose the mobile station according to claim 9, wherein said base station changes (page 3, par. [0025] of Das), in response to the quality information (page 7, par. [0103] of Seo), a modulation scheme of a data channel used in conjunction with a DPDCH in a downlink (page 8, par. [0104] of Seo).

As to claim 12, the combination of Das and Seo further disclose the mobile station according to claim 9, wherein said base station changes (page 3, par. [0025] of Das), in response to the quality information (page 7, par. [0103] of Seo), an error correcting encoding ratio of a data channel used in conjunction with a DPDCH in a downlink (page 7, par. [0095-0101] of Seo).

Allowable Subject Matter

3. Claims 1-2, and 4 are allowed.

As to claim 1, the prior art of record in alone, or combination do not disclose communication system in which mobile stations transmit to a base station quality information about a downlink from the base station to the mobile stations at alterable report cycles, said communication system including a channel that varies a transmission rate by changing a transmission format of data transmitted from the base station through the downlink in response to the quality information transmitted, wherein the individual report cycles of said mobile stations are selected from any one of a first, second and third groups, wherein the first group consists of 0, 1 and at least two positive integers without having a relation of a multiple, and of at least zero positive integer greater than the at least two positive integers without having the relation of a multiple; the second group consists of 0, 1 and positive integers equal to or greater than two, where the maximum value of the positive integers differs from a least common multiple of any two integers of the positive integers other than the maximum value; and the third group consists of 0, 1 and positive integers equal to or greater than two, where larger values of the positive integers are obtained from smaller values

of the positive integers.

Dependant claims **2, and 4** are allowed for the same reasons.

Claim **10** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim **10**, the prior art of record does not disclose the mobile station according to claim 9, wherein the at least two report cycles without having the relation of a multiple are each n times a unit report cycle, where n is a positive integer equal to or greater than two.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H. DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER G. KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuoc Doan
09/01/05


10/17/05
LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER